

## 22 - 2015 LOI - Technical Institutes Follow-up

Tuesday, February 02, 2016  
1:08 PM

Revised Letter of Intent: <http://legis.sd.gov/docs/budget/lofintent/letterofintentDOE06112015.pdf>



## MEMO

TO: Interim Joint Appropriations Committee

FROM: Postsecondary Technical Institute Presidents  
Mike Cartney, Lake Area Technical Institute  
Mark Wilson, Mitchell Technical Institute  
Jeff Holcomb, Southeast Tech  
Dr. Ann Bolman, Western Dakota Tech

CC: SD Department of Education  
Secretary Melody Schopp  
Tami Darnall, Division of Finance & Management  
Tiffany Sanderson, Division of Career & Technical Education

DATE: December 15, 2015

RE: \$1 Million Appropriation for Postsecondary Technical Institutes

Thank you for committing \$1,000,000 in general funds for the technical institutes to address high-need workforce areas. Today we submit our mid-year report detailing expenditures to-date and planned activities for the remainder of the fiscal year. Note that both Lake Area Technical Institute (LATI) and Mitchell Technical Institute (MTI) have included amendments in their reports. Please contact Tiffany Sanderson at the Department of Education ([tiffany.sanderson@state.sd.us](mailto:tiffany.sanderson@state.sd.us), 605.773.7006) by December 30<sup>th</sup> if any of the requested amendments are not supported.

The creation of the Build Dakota Scholarship to train skilled professionals in the state's highest need fields is a win for South Dakota. In January 2015, the scholarship administration board approved each technical institute to award \$1,000,000 in scholarships for the 2015-16 school year. We had anticipated approximately 260 students would receive full Build Dakota Scholarships between the \$4,000,000 from the scholarship fund and additional scholarship matches from business and industry. The technical institutes exceeded that projection and awarded 294 scholarships.

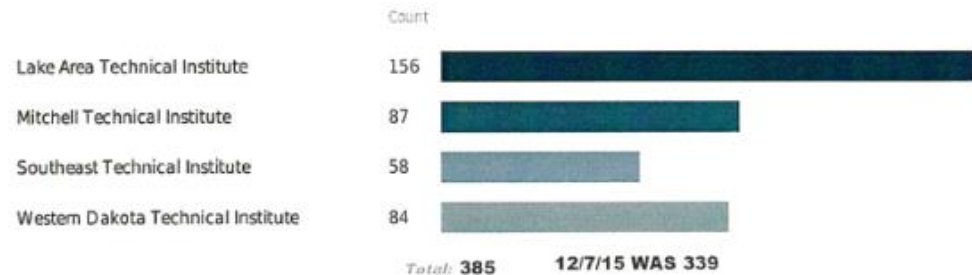
### Fall 2015 Awards by Workforce Trade

October 16, 2015

TRADE	APPLICANTS					AWARDS					IN-STATE					OUT-OF-STATE				
	LAT	MTI	STI	WDT	TOTAL	LAT	MTI	STI	WDT	TOTAL	LAT	MTI	STI	WDT	TOTAL	LAT	MTI	STI	WDT	TOTAL
Automotive	72	16	71	52	211	4	0	11	16	31	0	0	9	14	23	4	0	2	2	8
Building Trades/Construction	23	67	49	29	168	3	28	14	11	56	2	28	11	11	52	1	0	3	0	4
Energy Technician	15	19	0	0	34	6	9	0	0	15	6	8	0	0	14	0	1	0	0	1
Engineering Technician	10	14	51	41	116	2	10	17	20	49	1	8	13	20	42	1	2	4	0	7
Licensed Practical Nursing	60	0	16	54	130	29	0	16	14	59	23	0	16	14	53	6	0	0	0	6
Medical Laboratory Technician	15	17	0	0	32	5	0	0	0	5	5	0	0	0	5	0	0	0	0	0
Precision Manufacturing	36	20	22	11	89	19	7	4	3	33	16	7	3	3	29	3	0	1	0	4
Welding	37	33	23	44	137	15	10	8	13	46	15	8	6	12	41	0	2	2	1	5
No Program or Non-Approved	78	46	49	0	173															
<b>Total</b>	<b>346</b>	<b>232</b>	<b>281</b>	<b>231</b>	<b>1090</b>	<b>83</b>	<b>64</b>	<b>70</b>	<b>77</b>	<b>294</b>	<b>68</b>	<b>59</b>	<b>58</b>	<b>74</b>	<b>259</b>	<b>15</b>	<b>5</b>	<b>12</b>	<b>3</b>	<b>35</b>

Applications are now being accepted for the 2016-17 school year. As of December 11<sup>th</sup>, 385 applications have been received. Scholarship awards will be offered starting in January 2016.

### 2) TOTAL NUMBER OF APPLICATIONS SUBMITTED



We appreciate the committee's support to increase capacity in these high need programs and ensure the technical institute facilities and equipment meet industry's expectations. In addition to the \$1,000,000 appropriated through the funds discussed here, the technical institutes are also making investments for things such as equipment, additional instructors, lab renovations, printing, mailing, and additional staff time to accommodate the increased enrollments in Build Dakota-eligible programs.

ENCLOSURES



## Summary of Investments

FY2015 Funds for Planned Program Enhancements at South Dakota's Technical Institutes

Report - December 15, 2015

Equal Distribution of Appropriated \$1 Million				
	Funding Amount Approved & Provided	Mid-Year Expenditures	Program Investments	Types of Expenses
Lake Area Technical Institute	\$ 250,000.00	\$ 111,166.10	Building Trades Energy General Education Heavy Equipment Operator Practical Nursing Precision Machining Robotics Welding	Facility improvements, instructors & equipment
Mitchell Technical Institute	\$ 250,000.00	\$ 135,933.00	Farm Power Mechanic Electrical Construction & Maintenance Welding	Instructors & equipment
Southeast Tech	\$ 250,000.00	\$ 168,485.58	Automotive Tech Collision Repair & Refinish Tech Diesel Tech Mechanical Engineering Tech	Equipment
Western Dakota Tech	\$ 250,000.00	\$ 250,000.00	HVAC-R Renovation	Lab renovation & equipment
<b>TOTAL</b>	<b>\$ 1,000,000.00</b>	<b>\$ 665,584.68</b>		

*Note: Any expenses exceeding the appropriated amount are covered by the technical institute. In addition to the \$1,000,000 appropriated through the funds discussed here, the technical institutes are also making investments in equipment, additional instructors, lab renovations, printing, mailing, and additional staff time to accommodate the increased enrollments in Build Dakota-eligible programs.*



**LAKE AREA**  
TECHNICAL INSTITUTE

It's your world.

### Build Dakota Program Expansion Costs

Program	Item Description	Approved Budget - 06/10/15*	SB55 Expenses as of 12/1/15	Planned SB55 Expenditures by 5/31/16
Energy	Biofuels trainer	\$ 10,000.00	\$ 7,934.00	\$ 11,800.00
Energy	Solar Panel Installation	\$ 10,000.00	\$ 197.98	\$ 8,200.00
Energy	Power Plant Operator Simulation stations (2)	\$ 30,000.00	\$ 9,384.00	\$ 30,000.00
General Education	Overloads	\$ 9,000.00	\$ 8,145.00	\$ 9,000.00
Heavy Equipment Operator	Heavy Equipment Supplies/ Maintenance and repair	\$ 15,000.00	\$ 8,745.76	\$ 15,000.00
Practical Nursing	2 Nursing clinical adjuncts to add two remote cohorts of 8 students each	\$ 8,000.00	\$ -	\$ 8,000.00
Precision Machining	Additional Power for Precision Machining Lab	\$ 30,000.00	\$ 5,899.24	\$ 30,000.00
Precision Machining, Practical Nursing and Robotics	Offices for additional instructors (\$210 per office per month plus \$3000 for IT)	\$ 16,500.00	\$ 8,505.00	\$ 16,500.00
Precision Machining, Robotics and General Ed	IT Infrastructure Enhancements: Upgrade of 8 Switches and replace fiber to increase bandwidth to 10gig as well as upgrade the Access points to increase coverage for the wireless equipment	75,000 \$ 53,152.00	\$ 62,355.12	\$ 62,355.12
Precision Machining, Robotics and General Ed	Utilities - Building open on weekends and extended hours (currently \$11,000/month)	\$ 31,348.00	\$ -	\$ 31,348.00
Precision Machining, Robotics and General Ed	Custodian for extended hours and weekends	\$ 12,000.00	\$ -	\$ 2,796.88
Precision Machining, Robotics, Welding and Energy	Additional Supplies (Welding Rods, Metal, Lubricants, etc.)	\$ 25,000.00	\$ -	\$ 25,000.00
		<b>\$ 250,000.00</b>	<b>\$ 111,166.10</b>	<b>\$ 250,000.00</b>

*\*NOTE: Funding for four additional instructors, welding booths, and a High Performance Engine Machining Dynamometer, as well as any budget amounts listed exceeding LATI's distribution from SB55's \$250,000, will be covered by LATI.*



### Build Dakota Program Expansion Costs

Program	Item Description	Approved Budget - 06/10/15*	SB55 Expenses as of 12/1/15	Planned SB55 Expenditures by 5/31/16
Electrical Construction & Maintenance	Equipment - Ladders	\$ 2,560.00	\$ -	\$ 2,560.00
Farm Power Mechanic	Instructor - FY 15	\$ 39,221.44	\$ 38,511.00	\$ 38,511.00
Farm Power Mechanic	Instructor - FY 16	\$ 77,137.50	\$ 56,522.00	\$ 123,130.00
Multiple Build Dakota-eligible programs	Equipment Refresh	\$ 70,000.00	\$ 18,282.00	\$ 30,282.00
Welding	Instructor - FY 16	\$ 64,069.35	\$ 22,618.00	\$ 55,517.00
		<b>\$ 252,988.29</b>	<b>\$ 135,933.00</b>	<b>\$ 250,000.00</b>

# SOUTHEAST TECH

## Build Dakota Program Expansion Costs

Program	Item Description	Approved Budget - 06/10/15*	SB55 Expenses as of 12/1/15	Planned SB55 Expenditures by 5/31/16
Automotive Tech	A/C Charger, Reclaimer	\$ 16,000.00	\$ -	\$ 15,000.00
Automotive Tech	Brake Lathe - On Car Style	\$ 9,000.00	\$ 8,705.00	\$ 8,705.00
Automotive Tech	Hunter Alignment System**	\$ 32,392.00	\$ 32,391.95	\$ 32,391.95
Collision Repair & Refinish Tech	Hydraulic Hosit - 6T Capacity	\$ 20,000.00	\$ -	\$ 13,944.00
Collision Repair & Refinish Tech	Computerized Frame Measuring System	\$ 106,000.00	\$ 106,457.00	\$ 106,457.00
Collision Repair & Refinish Tech	Pro Spotter, i5	\$ 25,000.00	\$ -	
Collision Repair & Refinish Tech	Wasterborne Gun Washer - Drester 1000	\$ 28,000.00	\$ 1,540.00	\$ 4,620.00
Diesel Tech	Fork Lift - 6T Capacity	\$ 40,000.00	\$ -	\$ 41,079.00
Diesel Tech	Hot Water Parts Washer	\$ 10,000.00	\$ -	\$ 7,200.81
Diesel Tech	75-Ton Capacity Press	\$ 15,000.00	\$ -	
Mechanical Engineering Tech	3-D Color Printer w/software	\$ 36,000.00	\$ 19,391.63	\$ 19,391.63
		<b>\$337,392.00</b>	<b>\$168,485.58</b>	<b>\$248,789.39</b>

\*NOTE: Any budget amounts listed exceeding STI's distribution from SB55's \$250,000, will be covered by STI.

\*\*On 9/1/15, STI requested that their Above Ground Hoist (\$30,000) be replaced with a Hunter Alignment System. The upgrade has the capability of the originally requested hoist, plus allows for instruction on front-end alignment. The Hunter Alignment System costs \$32,392. STI will pay the difference.



### Build Dakota Program Expansion Costs

Program	Description	Approved Budget - 06/10/15*	SB55 Expenses as of 12/1/15	Planned SB55 Expenditures by 5/31/16
Environmental Engineering Tech	New science lab to accommodate EET labs. Costs will be for renovation, hoods, and lab equipment.	\$ 150,000.00	\$ -	\$ -
HVAC-R	HVAC lab will be moved from Rushmore building to previous Collision Repair lab. Costs will be for lab renovation and equipment needed for expansion.	\$ 300,000.00	\$ 454,606.87	\$ 454,606.87
<b>Total</b>		<b>\$ 450,000.00</b>	<b>\$ 454,606.87</b>	<b>\$ 454,606.87</b>

*\*NOTE: Western Dakota Tech covered the cost of the HVAC-R Lab Renovation beyond the \$250,000 provided by 2015's SB55.*

**a. Narrative sharing the value of the funds and what they've meant to build capacity for high needs programs at your school.**

Lake Area Technical Institute is grateful for the \$250,000 funding allocation through Senate Bill 55. This funding, combined with additional grant and institutional funds, allowed LATI to expand the high demand programs quickly to accommodate the additional Build Dakota students.

The programs expanded through Senate Bill 55 funding include Energy, General Education, Heavy Equipment Operator, Practical Nursing, Precision Machining, Robotics, and Welding. Specific outcomes in each of these areas include:

**1. Energy**

The Energy Operations and Energy Technology Programs increased enrollment from 37 incoming students in Fall 2014 to 49 in Fall 2015. The Energy graduates earn the highest wages of all LATI graduates six months after graduation with the Spring 2014 graduate starting wage range of \$22 to \$29 per hour. The Siemens Foundation and the Aspen Institute ranked the LATI energy program as one of the top ten STEM programs in the nation in Fall 2015 for outstanding student and career outcomes.

The Senate Bill 55 funds enabled Lake Area to purchase equipment to teach the additional students biofuels, solar energy, and power plant operation techniques. The larger than expected increase in students does require a slight shift in funding to achieve these goals as requested in the amendment outlined in Section C below.

**2. Heavy Equipment Operator**

The Heavy Equipment Operator program is a newer program created at the request of industry partners. The enrollment remained steady at 22 incoming students in Fall 2015. The first class of students graduated in Spring 2015. Wage data will be collected in the six month follow-up report due in Spring 2016.

The Heavy Equipment Operator program requires a large investment for equipment. Due to the cost, many of the machines in operation were purchased used. The Senate Bill 55 funds support the program by providing funding to repair and maintain the equipment.

**3. Practical Nursing**

The Practical Nursing program expanded the online program in Fall 2015 to create cohorts in Huron and Aberdeen. The number of incoming students increased from 45 in Fall 2014 to 51 in Fall 2015. The Spring 2014 Practical Nursing graduates earned \$15.91 per hour on average six months after graduation.

The Department of Labor Trade Adjustment Assistance Grant funded an additional instructor to teach the hybrid option online courses and evening/weekend labs. The Senate Bill 55 funding supported the expansion by funding an office for the instructor, upgrading the technology and electrical infrastructure, purchasing additional supplies, and covering the custodial and utility costs of keeping the buildings open for extended hours.

#### **4. Precision Machining**

The Precision Machining program expanded the on campus and hybrid programs in Fall 2015. The number of incoming students increased from 26 in Fall 2014 to 29 in Fall 2015. The Spring 2014 Precision Machining graduates earned \$18.59 per hour on average six months after graduation.

The Department of Labor Trade Adjustment Assistance Grant funded an additional instructor to teach the hybrid option online courses and evening/weekend labs. The Senate Bill 55 funding supported the expansion by funding an office for the instructor, upgrading the technology and electrical infrastructure, purchasing additional supplies, and covering the custodial and utility costs of keeping the buildings open for extended hours.

#### **5. Electronics/Robotics**

The Electronics/Robotics program expanded the on campus and hybrid programs in Fall 2015. The number of incoming students increased from 30 in Fall 2014 to 49 in Fall 2015. The Spring 2014 Electronics/Robotics graduates earned \$23.07 per hour on average six months after graduation.

The Department of Labor Trade Adjustment Assistance Grant funded an additional instructor to teach the hybrid option online courses and evening/weekend labs. The Senate Bill 55 funding supported the expansion by funding an office for the instructor, upgrading the technology infrastructure, purchasing additional supplies, and covering the custodial and utility costs of keeping the buildings open for extended hours.

#### **6. Welding**

The Welding increased enrollment from 35 incoming freshman in Fall 2014 to 45 incoming freshman in Fall 2015. In addition, the number of students continuing from first year to second year to complete the Associates Degree program increased from 11 to 14. The Spring 2014 Welding graduates earned \$16.44 per hour on average six months after graduation.

The Senate Bill 55 funding is covering the cost of the supplies for the additional students. The Department of Labor Trade Adjustment Assistance Grant funding allowed LATI to expand the program in Spring 2015 by installing an additional eight welding booths and upgrading the electrical service to accommodate the equipment.

## **7. General Education**

A key component of preparing students for high demand technical careers is general education. This curriculum teaches students the essential writing, mathematics, interpersonal, and leadership skills necessary to succeed in the workforce. The additional technical education students in high demand programs also increased the number of general education course offerings. LATI hired adjunct instructors to cover additional sections of MATH 100, CIS 100, and ANAT 142 to accommodate the additional on campus and online Build Dakota students.

### **b. Expenditures made through December 1, 2015 and copies of invoices as backup documentation.**

Please see attached PDF with the Build Dakota Program Expansion Costs spreadsheet and corresponding invoices to document expenditures.

### **c. Planned expenditures through May 31, 2016.**

Lake Area Technical Institute is on track to expend the funds as planned by the May 31, 2016 deadline. We are requesting the following amendments to the original proposal and budget:

#### **Item 1: Biofuels trainer and drywash system**

The cost of the biofuels trainer and drywash system is approximately \$11,800, exceeding the budgeted amount of \$10,000. We request amending the budget to \$11,800 to allow for the overage and reducing the corresponding amount for Item 2: Solar panel installation, which is projected to be under budget.

#### **Item 2: Solar panel installation**

The cost of the solar panel installation is projected to be under the original budget amount of \$10,000. We request that the budget for this item be reduced to \$8,200 in order to cover the overage from the Item 1: Biofuels trainer and drywash system.

#### **Item 3: Power Plant Operator Simulation Stations (2)**

We request substituting "Power Plant Operator Simulation Stations (2)" with "Power Plant Operator Simulation Stations (16) with an annual license to SmartDraw". The budget will remain at \$30,000.

The higher than expected enrollment increase in Energy shifted the focus from purchasing two advanced training modules (\$15,000 each) for existing simulation stations to creating 16 additional stations to accommodate student growth. If approved, the department will purchase 16 computers, desks, and chairs to expand the simulation lab instead. The existing annual software site license will accommodate the additional seats. The department is also requesting an annual license to SmartDraw, a lower cost alternative software estimated at \$2,000-\$3,000. The stations and software together are projected to cost \$30,000 as budgeted.

**Item 9: Information technology infrastructure enhancements**

The information technology infrastructure enhancements to increase bandwidth and access points in the Build Dakota program-related areas costs \$62,356, exceeding the original budget estimate of \$53,152. We request increasing this line item to cover the additional expenses. The savings in the custodial salaries will offset the difference.

**Item 11: Custodian for extended hours and weekends**

Lake Area Technical Institute is hiring a part-time custodian to work nights and weekends during the Spring 2016 semester. The custodian is responsible for cleaning the labs with extended hours. Since we did not hire a custodian for Fall 2015 and the position is part-time rather than a percentage of a full-time salary, the total cost attributed to the Build Dakota Program Expansion is significantly lower than projected. We request reducing this budget line item to \$2,796. Actual costs may exceed this amount, but they will be covered by institutional funds.

**d. Any photos or videos of the equipment/facilities made possible through these funds.**

A collection of photos featuring the Build Dakota Programs is available at the following link:  
<https://drive.google.com/a/lakeareatech.edu/folderview?id=0BwPdIs4yrnwwTC1YTINRb2pNc2M&usp=sharing>



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Energy	2	Solar Panel Installation	\$ 10,000.00	\$ 197.98	\$ 8,200.00
Energy	3	Power Plant Operator Simulation Stations (2)	\$ 30,000.00	\$ 9,384.00	\$ 30,000.00
General Education	4	Overloads	\$ 9,000.00	\$ 8,145.00	\$ 9,000.00
Heavy Equipment Operator	5	Heavy Equipment Supplies/ Maintenance and Repair	\$ 15,000.00	\$ 8,745.76	\$ 15,000.00
Practical Nursing	6	2 Nursing clinical adjuncts to add two remote cohorts of 8 students each	\$ 8,000.00	\$ -	\$ 8,000.00
Precision Machining	7	Additional Power for Precision Machining Lab	\$ 30,000.00	\$ 5,899.24	\$ 30,000.00
Precision Machining, Practical Nursing and Robotics	8	Offices for additional instructors (\$210 per office per month plus \$3000 for IT)	\$ 16,500.00	\$ 8,505.00	\$ 16,500.00
Precision Machining, Robotics and General Ed	9	IT Infrastructure Enhancements: Upgrade of 8 Switches and replace fiber to increase bandwidth to 10 gig as well as upgrade the Access points to increase coverage for the wireless equipment	\$ 53,152.00	\$ 62,355.12	\$ 62,355.12
Precision Machining, Robotics and General Ed	10	Utilities - Building open on weekends and extended hours (currently \$11,000/month)	\$ 31,348.00	\$ -	\$ 31,348.00
Precision Machining, Robotics and General Ed	11	Custodian for extended hours and weekends	\$ 12,000.00	\$ -	\$ 2,796.88
Precision Machining, Robotics, Welding and Energy	12	Additional Supplies (Welding Rods, Metal, Lubricants, etc.)	\$ 25,000.00	\$ -	\$ 25,000.00
			\$ 250,000.00	\$ 111,166.10	\$ 250,000.00
					\$ 361,166.10

\*NOTE: Funding for four additional instructors, welding booths, and a High Performance Engine Machining Dynamometer, as well as any budget amounts listed exceeding LATI's distribution from SB55's \$250,000, will be covered by LATI.